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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,669	02/04/2004	Yoo-shin Lee	P2072US	3595
8968	7590	04/16/2007		
DRINKER BIDDLE & REATH LLP ATTN: PATENT DOCKET DEPT. 191 N. WACKER DRIVE, SUITE 3700 CHICAGO, IL 60606			EXAMINER WANG, KENT F	
			ART UNIT	PAPER NUMBER
			2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/771,669	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Kent Wang	<b>Art Unit</b> 2609	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/06/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The reference listed on the disclosure statement (IDS) submitted on 05/06/2004 has being considered by the examiner (see attached PTO 1449).

### ***Drawings***

3. The drawing is objected to because reference character 81 in Figure 6 has been mislabeled. The labeled element 81 should be changed to 71 (see page 7, lines 16-22). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

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remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, and 5-6 are rejected under 35 U.S.C. § 102(e) as being anticipated by Fischer, US 6,946,817.

Regarding claim 1, Fischer discloses an apparatus for charging a battery of a portable electronic device connected to a computer by USB by transferring power from the computer through the USB, the apparatus comprising:

- a control portion (i.e. processing device 20) to generate charge control signals (i.e. soft-disconnect signal 212 and charge configuration signals 214)

corresponding to a battery selected according to a battery selection signal that is externally input (see col. 6, lines 13-20);

- and a charging portion (i.e. charging subsystem 16) to charge the selected battery according to the charge control signals (i.e. 212 and 214) from the control portion.

Regarding claim 2, Fischer discloses the charge control signals of the control portion comprise a charge start signal (i.e. 212) to enable output of the charging portion (e.g. causes the soft-disconnect switch 202 to reset, disconnect and reconnect) (see col. 6, lines 21-34).

Regarding claim 3, Fischer discloses the charge control signals of the control portion comprise a battery type signal (i.e. 214) to control an output voltage level according to the battery selection signal (e.g. controls the power supplied by the charging subsystem 16 to the rechargeable battery 18) (see col. 6, lines 21-34).

Regarding claim 5, Fischer discloses the control portion is a main controller (402) of the portable electronic device (see col. 7, lines 4-23).

Regarding claim 6, Fischer discloses the battery selection signal is input by a user (see col. 2, line 58 to col. 3 line 4).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 7-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fischer in view of Sherman, US 6,507,172.

Regarding claim 8, Fischer discloses digital camera connected to a computer by USB to charge a battery by receiving power from the computer through USB, the digital camera comprising:

- a USB charger including a USB controller (14) to transmit and receive data through a USB port of the computer, a control portion (20) to generate charge control signals corresponding to a battery selected according to a battery selection signal that is externally input, and a charging portion (16) to charge the selected battery according to the charge control signals from the control portion (see col. 2 lines 58-67 and col. 5, line 66 to col. 6, line 20);
- a control portion (20) to control a charging operation of the charging portion;
- and a main controller (402) to transmit and receive data with the USB controller (see figure 5 and col. 7, lines 4-23);

Fischer does not does not explicitly disclose a charging portion to charge the various types of batteries and a power converting portion to output a plurality of voltage levels. Sherman discloses

- a charging portion (i.e. charger 20) to charge at least one among the various types of batteries (e.g. adapted for charging other types of batteries; col. 2 lines 1-10)

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- and a power converting portion (i.e. linear regulator 32) to receive power from the battery that is charged by the charger and generate and output power having a plurality of voltage levels (see col. 2, lines 44-63).

Fischer and Sherman are analogous art because they are from the same field of endeavor of battery charger using USB for a mobile communication device. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Sherman's charger and linear regulator in Fischer's battery charger. The suggestion/motivation would be to provide the ability to dissipate heat caused by high input voltage from USB supply voltage or from other supply voltage battery sources, thereby preventing the portable device from overheat or breakdown (see col. 3, lines 26-43 of Sherman).

Regarding claim 4, Sherman discloses the charge control signals of the control portion comprise a charge voltage control signal (i.e. CHG) and a charge current control signal (i.e. ISEL), which are generated based on the detection of a charge current and a charge voltage from the charging portion (i.e. charger 20), to control the charge current and the charge voltage (see figure 2 and col. 2, lines 11-43).

Regarding claim 7, Sherman discloses the battery selection signal is input by a battery recognition apparatus (i.e. voltage selector 50) (see col. 3, lines 44-61).

Regarding claims 9-11, these claims are recited same limitations as claims 2-4. Thus they are analyzed as previously discussed with rejected to claims 2-4 above

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kerai et al. (US 6,531,845) disclose a battery charging circuit in which power is derived from a communications port such as a USB interface and is supplied to a rechargeable battery of a communications device.
- Odeohhara et al. (US 6,459,235) disclose a charge control method by which batteries can be efficiently charged, even if the charging is aborted, as well as a computer which employs such a charge control method is provided.

### ***Inquiries***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

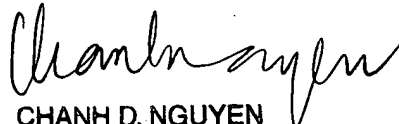
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Kent Wang  
26 March 2007

  
CHANH D. NGUYEN  
SUPERVISORY PATENT EXAMINER